



**PATIENT PRESENTING CLINICAL SIGNS**

Nariko Brusey Owner brought into clinic with bloated abdomen. No meds.  
Abnormal PE/Chem/CBC/UA Results: No bloodwork done recently, was normal in September of 2021. Wanted to proceed with ultrasound before any other diagnostics.

**SPECIES**

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

DSH

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**SEX**

Spayed Female

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measured 3.69 cm. The right kidney measured 3.58 cm.

**AGE**

16 Years

**Adrenal Glands**

The adrenal glands were not well visualized in these images, given the large amount of abdominal fluid pushing normal organs out of the way.

**WEIGHT**

4.2 kg

**Spleen**

Spleen is subjectively large in size with subtly scalloped or undulating capsular contour. Parenchyma is normal in echogenicity with a mildly coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**IMAGING PERFORMED BY**

Crystal Hill

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**HOSPITAL NAME**

Cat Hospital of  
Burlington

**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**REFERRING VET**

Dr. Lowrey

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

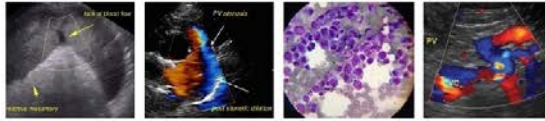
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The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**DATE**

8/11/22



**PATIENT** *Pancreas*

Nariko Brusey

The pancreas is prominent in size (most prominent on the right) with a very irregular undulating contour. Parenchyma is heterogeneous, characterized by hyperechoic tissue remodeling intermixed with ill-defined, hypoechoic nodules. There is no visible pancreatic duct dilation.

**SPECIES**

Feline

*Free Abdomen*

There is an extremely large amount of echogenic appearing free fluid, including suspect pleural effusion.

**BREED**

DSH

There is no apparent lymphadenopathy noted in these images.

**SEX**

Spayed Female

**AGE**

16 Years

**PRIMARY FINDINGS**

- **Scalloped spleen** – can be associated with benign or malignant infiltrative disease. Common causes include a reactive spleen secondary to immune stimulus or early infiltrative round cell neoplasia such as lymphoma or mast cell tumor.
- **Pancreatic nodular hyperplasia** – Infiltrative neoplasia is also a differential, especially given the amount and appearance of the free fluid, which could be indicative of carcinomatosis.
- Large amount of echogenic free abdominal fluid as well as pleural effusion

**SECONDARY FINDINGS**

- Age related kidney change
- **Gallbladder debris** - Cholecytic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

CBC/Chem panel, electrolytes and urinalysis is recommended if not recently evaluated. Fluid sampling for cytology +/- culture, if indicated, is recommended. Pending the results of the fluid analysis, a fine needle aspirate of the spleen could also be considered if patient's coagulation status is appropriate.

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

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**PATIENT**

Nariko Brusey

**SPECIES**

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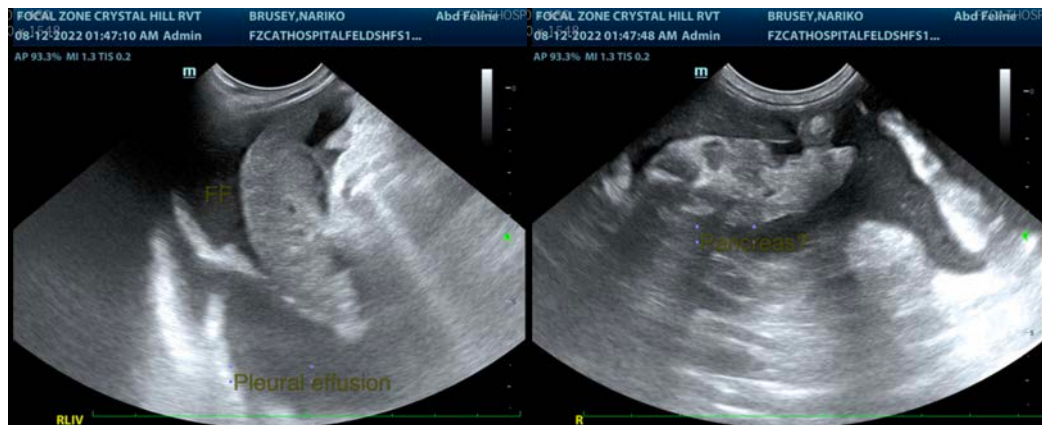
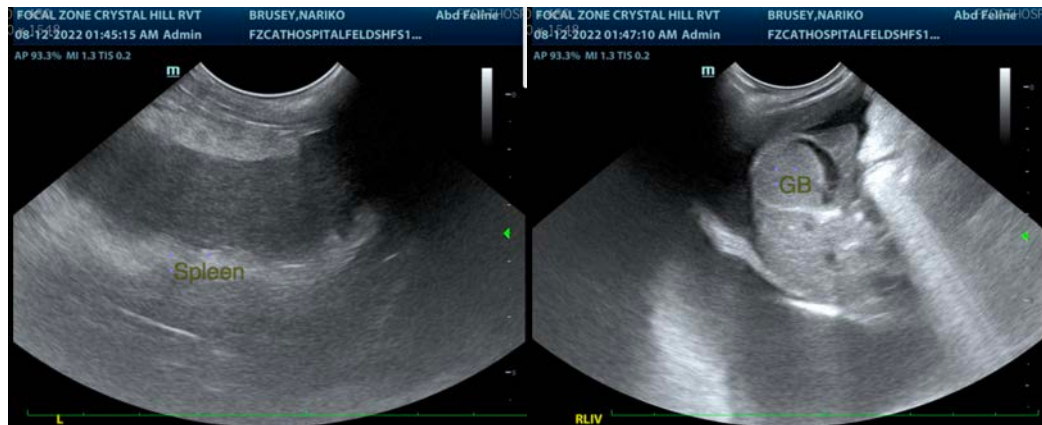
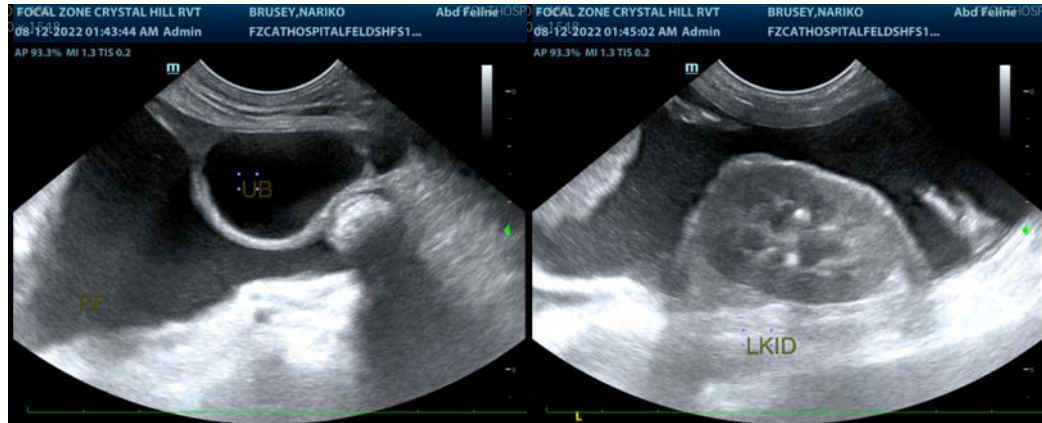
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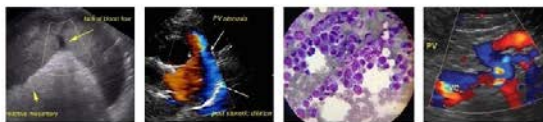
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

**Beth Johnson, DVM, DACVIM**  
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